Application Serial No. 10/579,087   PATENT
Reply to office action of November 19, 2008   Docket: CU-4808

Amendments To The Claims

The listing of claims presented below will replace all prior versions, and listings,

of claims in the application.

Listing of claims:

1.   (Currently Amended) A method for removing noise in an image, the method

comprising ~~the steps of~~:

dividing image data contained in the image into predetermined unit areas~~;~~ and

calculating each threshold corresponding to the unit area by using values of pixels

contained in the unit area;

detecting whether a first pixel containing impulsive noise exists in the unit area by

using the calculated threshold;

applying a median filter to the first pixel in the case the first pixel is detected;

identifying a second pixel adjacent to the first pixel in the case the median filter is

applied to the first pixel; and

applying a mean-variance filter to the second pixel.

2.   (currently amended) The method of claim 1, wherein the step of calculating

each threshold corresponding to the unit area by using values of pixels contained in the

unit area comprises ~~the step of~~ calculating threshold=$\alpha + \log_2(x_m)$, and

said α is the minimum threshold to detect a pixel containing impulsive noise

and said χ_m is the mean of the values of the pixels contained in the unit area.

3.   **(currently amended)** The method of claim 1, wherein a value of the second

pixel which is filtered by applying the mean-variance filter to the second pixel is

calculated as,

$$\frac{\sigma_k^2(i,j)k(i,j)+\overline{k}^2(i,j)}{\sigma_k^2(i,j)+\overline{k}(i,j)}$$

value of filtered second pixel=   , and

said $k(i, j)$ is a first pixel value in coordinates (i, j), said $\sigma_k (i,j)$ is the variance of

values of second pixels, and said $\overline{k}(i,j)$ is the mean of the values of the second

pixels.

4.   **(currently amended)** A computer readable ~~record~~ medium ~~recording a~~

~~program for implementing medium~~ <u>used in association with a computing device</u>

<u>which includes a processor and a memory, the computer readable medium</u>

<u>including computer instructions which are configured to cause the computing</u>

<u>device to implement</u> the method according to claim 1 ~~in a computer~~.

5.   (Original) A system for removing noise in an image, the system comprising:

        a threshold calculation unit dividing image data contained in the image into

predetermined unit areas and calculating each threshold corresponding to the unit area

by using values of pixels contained in the unit area;

        a first filter detecting whether a first pixel containing impulsive noise exists in the

unit area by using the calculated threshold and applying a median filter to the first pixel

in the case the first pixel is detected; and

a second filter identifying a second pixel adjacent to the first pixel and applying a

mean-variance filter to the second pixel.